

Better prediction of long-term consequences of whiplash trauma

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Possible long-term consequences from a whiplash trauma can be effectively predicted if the injured persons are subdivided into different risk groups shortly after the car accident. This is shown by a Danish study that was presented at the Congress of the European Academy of Neurology in Copenhagen.

Chronic [pain](#) and other neurologic complaints often persist intractably many years after a [car accident](#) as consequences of a whiplash injury. Dividing injured individuals into risk groups shortly after the accident allows one to accurately predict which individuals are especially in danger of suffering from [long-term effects](#) from whiplash, physically as well as psychosocially. This was shown in a new study conducted by the Danish Whiplash Study Group and presented at the Second Congress of the European Academy of Neurology (EAN) in Copenhagen.

Risk group system suitable for long-term forecasts

Study author Dr M.K. Rasmussen from the University of Aarhus: "We developed a system years ago to divide patients into risk groups. As it now turns out, this system lets us not only predict whether or not the injured individuals will be able to work again after a year. It also allows us to estimate long-term effects." In this study a questionnaire was given to 326 individuals who had sustained a [whiplash injury](#) twelve to fourteen years earlier. It covered on-going pain, non-painful complaints, prescribed analgesics and non-medical treatment also in comparison to

the time prior to the whiplash accident. In addition, sick leaves were recorded as was the subjective assessment of the patients regarding the ramifications of the accident. Prof Kasch, lead investigator of the Danish Whiplash Study Group: "It turned out that more than a decade after the fact the people most heavily affected were those who had been assigned to the highest risk groups shortly after the accident."

Specifically, they suffered substantially more often from neck, head, shoulder and arm pain as well as low back pain. They also exhibited a number of non-painful neurologic symptoms more often. They required pain medication more frequently as well, from mild analgesics to strong opioids and suffered to a greater extent from posttraumatic stress symptoms.

Factors for division into risk groups

An accident patient has to undergo a clinical examination within four days after the accident in order to assign him or her to a risk group. The physicians assess the following factors: the type and nature of the pain, the type and number of non-painful complaints as well as neck mobility. If a patient has strong neck pain, headaches and is in a negative emotional state, these are important indicators for judging whether someone will be able to work again after a [whiplash](#) trauma. In the preceding studies, it was determined that fewer than 4 per cent of the patients in Risk Group 1 were still unable to work one year after the accident. In the highest-[risk group](#) Risk Group 7, this figure was nearly double as high at 7.68 per cent.

More information: Kasch H, Kongsted A, Qerama E, et al, A new stratified risk assessment tool for whiplash injuries developed from a prospective observational study. *BMJ Open* 2013;3:e002050;

EAN 2016 Abstract: Rasmussen MK et al, Risk assessment within 4 days after whiplash injury identifies long-term painful and non-painful

neurologic disability. A twelve-year prospective study

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